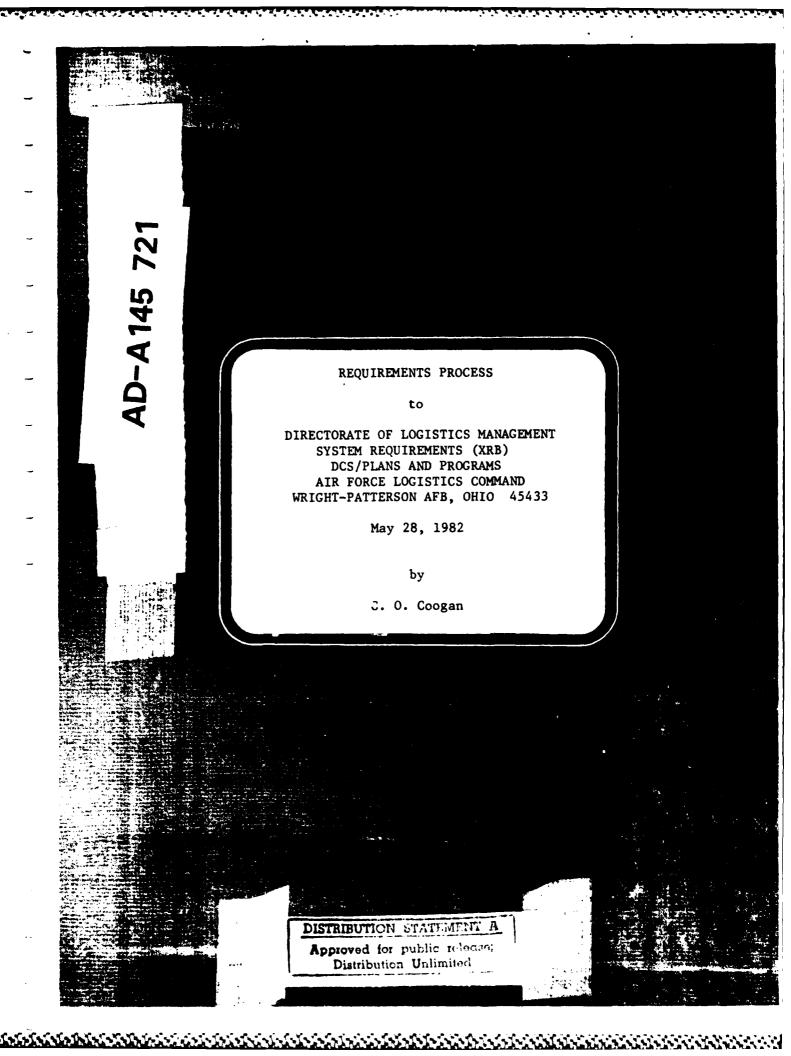


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FINAL REPORT

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on

REQUIREMENTS PROCESS

to

DIRECTORATE OF LOGISTICS MANAGEMENT
SYSTEM REQUIREMENTS (XRB)
DCS/PLANS AND PROGRAMS
AIR FORCE LOGISTICS COMMAND
WRIGHT-PATTERSON AFB, OHIO 45433

May 28, 1982

bу

C. O. Coogan

Contract No. F33600-81-C-0613

BATTELLE Columbus Laboratories 505 King Avenue Columbus, Ohio 43201

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19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
This document provides a description of the Requirements Process as it pertains to recoverable items. The description is in terms of what must be done to effectively determine future requirements based on current and historical data. The necessary inputs and outputs are described as a means of defining the interfaces between this process and other processes. The details of how requirements are computed are intentionally excluded because of the many options for accomplishing the function.					
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FINAL REPORT

on

REQUIREMENTS PROCESS

to

DIRECTORATE OF LOGISTICS MANAGEMENT SYSTEM REQUIREMENTS (XRB)

from

BATTELLE Columbus Laboratories

May 28, 1982

INTRODUCTION

This document provides a description of the Requirements Process as it pertains to recoverable items. The description is in terms of what must be done to effectively determine future requirements based on current and historical data. The necessary inputs and outputs are described as a means of defining the interfaces between this LAG and other LAGs. The details of how requirements are computed are intentionally excluded from this LAG description because there are many options for accomplishing the same function, and the LAG definition should be sufficiently robust to encompass all or most of those options. There are, however, basic functions that must be accomplished for all options. It is the intent of this description to address these basic functions.

This LAG description is in five parts as follows:

- 1. Purpose A brief statement of purpose for the Recoverable Item LAG
- 2. System Description A definition of the scope and functions of the Recoverable Item LAG
- 3. System Characteristics A definition of the characteristics of this LAG that differentiate it from other LAGs.
- 4. System Interfaces A definition of the inputs and outputs of the system at the critical interfaces

5. A set of data sheets for input to FCMS.

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The effective use of this LAG as a management tool for LMS system evaluation requires that the interfaces be carefully defined and controlled using effective interface control methods. The details interior to the LAG should be provided wide latitude for change unless the interface criteria are breached. In those cases, the interface should be redefined and then controlled in the new configuration.

PURPOSE

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The purpose of the Recoverable Item LAG is to provide a means of determining future requirements for recoverable items that meet the future needs of operational commands. An ancillary purpose is to provide an effective means of forecasting the material requirements of alternative force structure or operational scenarios under a variety of budget options. The output products must be rational, defensible statements of requirements that are time-phased to meet fiscal and operational needs.

SYSTEM DESCRIPTION

General

The Recoverable Item requirements process involves the use of approved weapon system utilization data developed by the Air Staff, end-item-peculiar historical data, and industry capacity information to define the time-phased requirements for each of the AFLC-managed recoverable items. The process requires the consideration of many historical data elements, some of which are outside the direct control of AFLC and depend upon worldwide systems for input. Virtually all levels of AFLC are involved in either input of data on evaluation of the results of computation.

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Figure 1 provides a generalized description of the key elements of the Recoverable Item process and some of the interrelationships between the functions. An important note is that the scope of the requirements process as depicted in Figure 1 does not include the activities associated with deciding to buy, nor the evaluation of impacts of not buying a given requirement.

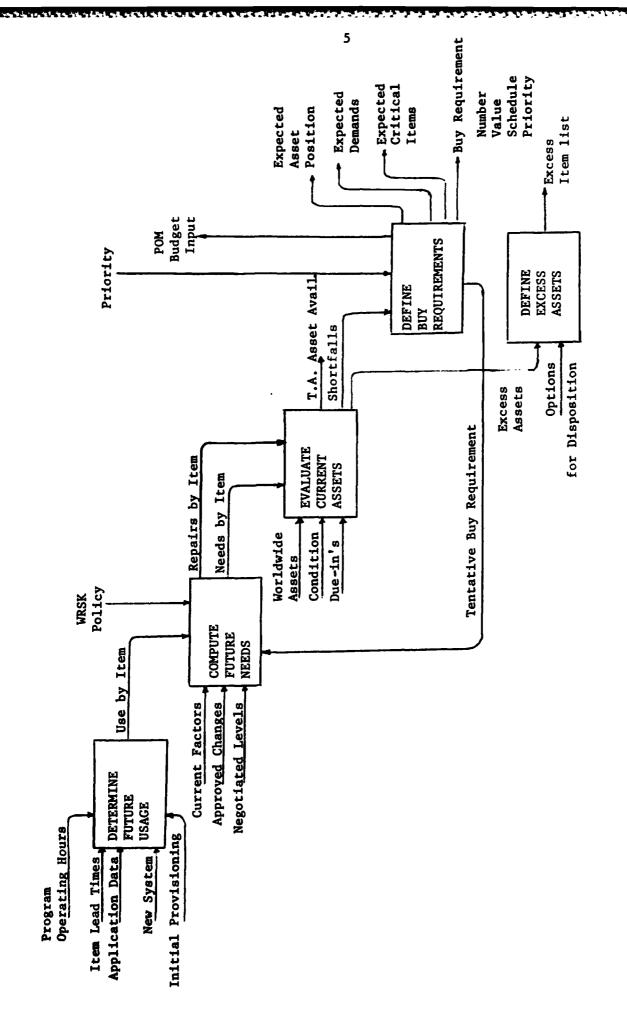
Functions of the System

In this section the major functions of Recoverable Item requirements determination are discussed. Figure 1 provides an overview of the major functions and could serve as a top level diagram of the Recoverable Item LAG. At this level of detail, the major inputs and outputs are defined. In order to differentiate between methods of accomplishing the function, a much greater amount of detail is required. In support of that objective, each of the major functions have been decomposed one level of detail. These are presented in Figures 2 through 6.

In order to determine the need to acquire recoverable items, there are five basic functions that must be performed regardless of how they are performed. The basic functions are:

1. <u>Determine Future Usage</u>. There must be a determination of how and how frequently the systems that contain the recoverable items will be used. This may be determined from formal planning documents such as published by the

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FIGURE 1. RECOVERABLE ITEMS REQUIREMENTS: LAG 14

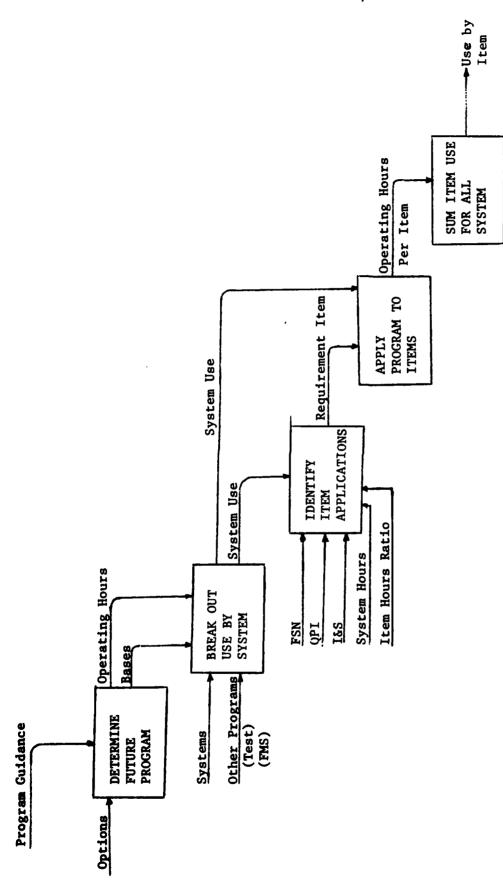
Air Staff or could result from "What if" questions by senior AFLC staff members. In order to compute a defensible buy quantity, the source must be formal, approved documents such as the PD. The determination of future usage must include a definition of the items that make up a system and a definition of new systems and their recoverable components. The period of interest for future usage is the lead time for the items in the case of a buy computation and lead-time-plus-budget cycle for budgetary computation.

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The major output of this function is use-by-item for all items based on the system use input. (See Figure 2 for details.)

- 2. Compute Future Needs. This function uses end item use and current factors (such as maintenance factor, base repair cycle time, depot repair cycle time, order and shipping time, not-reparable-this-station rates, condemnation rates, negotiated levels, safety level factors, and modification information) to compute the number of assets necessary to fill the requirement. This computation can be done independently of the current asset position if the output is considered a raw need. Instances of repair can also be computed in this function and, in fact, are a byproduct of the asset requirement computation. The actual method of computation is optional and could be different for buy computations and budget computations. The input data are the same regardless of the method of computation. Correctness of these inputs is a key determinant in the accuracy of the computation. Therefore, there must be an effective means of updating these inputs and carefully controlling the input values to preserve the credibility of the output. (See Figure 3 for details.)
- 3. Evaluate Current Assets. This function involves establishing a current assessment of the worldwide asset position for each recoverable item. The primary ingredients are the status of on-hand assets at each of the bases, the depots and in-transit, due-in assets from maintenance and as a result of previous buys, and the status of modification programs which produce assets of a new configuration while consuming the assets of a prior configuration. Modification programs frequently require turnaround assets which must be included in the overall asset assessment. The output is a current picture of the worldwide asset position for use in comparison to future needs. (See Figure 4 for details.)



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FIGURE 2. DETERMINE FUTURE USAGE

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FIGURE 3. COMPUTE FUTURE NEEDS

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FIGURE 4. EVALUATE CURRENT ASSETS

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- 4. Define Buy Requirements. Given a future need by end item by quarter and an asset position, it is possible to compute the shortfall by quarter and therefore the need to buy by quarter. The assets must be procured lead time away from actual need. Therefore, it is necessary to define the buy requirements at need date minus administrative and production lead time. The requirement, as output from this function, should be in terms of numbers of each item, delivery schedule, value, and priority. Since there are not always sufficient funds available to procure all required items, the priority and funding constraints must be input to this function as well as the cost of each item. (See Figure 5 for details.)
- 5. <u>Define Excesses</u>. In the process of determining shortfalls, some cases of excess will be identified. After verification of the factors used in computation, the excess assets must be identified to management for possible disposal. In a future system it may be possible to use excess assets as a resource to modify factors for shortfall items. For example, excess F-4 radar units might be used to realign the depot repair cycle at Warner Robins ALC so that priority is given to F-15 radar repairs, thus shortening F-15 radar depot repair cycle and increasing F-4 depot repair cycle times. In such a case the excess assets would be used as a pool to enable factor adjustments by the Equipment Specialists. (See Figure 6 for details.)

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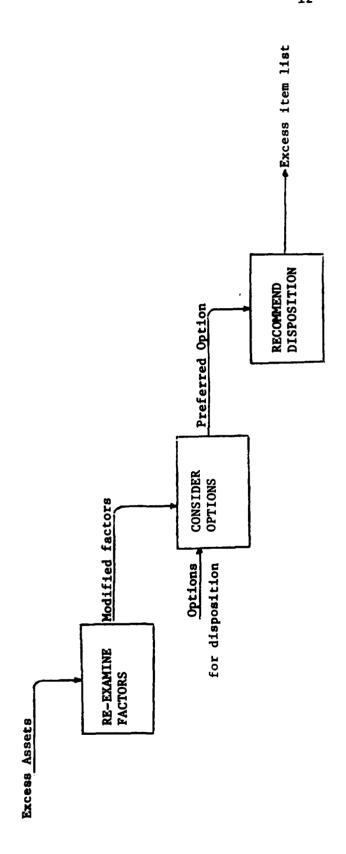
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FIGURE 5. DEFINE BUY REQUIREMENT



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FIGURE 6. EXCESS ASSET DISPOSITION

SYSTEM CHARACTERISTICS

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The Recoverable Item Requirements LAG represents one of the most critical aspects of AFLC's business. Because of the relatively high cost of recoverable items, the extended value of the recoverable item inventory exceeds the value of all other inventories except aircraft systems. Recoverable items also represent the major element of AFLC annual budget. Of the 12 to 15 billion dollar annual budget for AFLC, approximately one half is applied to the procurement or repair of recoverable items.

Each of the five Air Logistics Centers (ALCs) is involved in determining the basic requirement for recoverable items under an arrangement where item management for each item is assigned to an ALC. Headquarters AFLC is directly involved in the process from the standpoint of establishing policies, computational methods, and resolving fiscal shortages.

The Recoverable Item Requirements Process is not a single-pass system. Even if all input data were perfectly accurate, the reality that sufficient funds are seldom available to buy all requirements dictates recomputations.

Dependency on outside agencies for input data, such as failure rates and base repair cycle times, requires extensive interaction between AFLC and other agencies in the course of validating inputs. Contingency plans and the need to support higher levels of command in the Air Force with logistics planning data causes elements of the Recoverable Item process to be exercised, at least in part, for more than buy determinations.

Support for Foreign Military Sales (FMS) customers present special problems to the Recoverable Item Requirements Process. Legal prohibitions against buying in anticipation of a sale, combined with agreements to support FMS customers from jointly-owned or Air Force assets, causes the need for a flexible method of requirements computation that can adjust to rapidly changing political conditions.

Introduction of concepts such as Variable Safety Level, Missionization of Aircraft, and Mod Metric causes the need to accomplish requirements computations for groups of items under a variety of contraints and to meet a variety of output conditions. In some cases there is a need to exercise parts of the requirements process to determine the impact of implementing a contingency option given the existing set of resources.

SYSTEM INTERFACES

In this section the key interfaces of the Recoverable Item LAG are defined in terms of the inputs and outputs. For the purpose of this draft, the interfaces were kept relatively simple and stated in terms of the processes rather than each of the other LAGs. Ideally, the interface with each other LAG would be defined in this manner. Control of the LAG could then be exercised by control of the interface in a true systems engineering approach. Figure 7 shows a generalized view of the interfaces of recoverable items with other processes. The specifics of each interface are shown in the interface table (Table 1). An inspection of Table 1 compared to Figures 1 through 6 will show that outputs from the logic clusters of Figures 1 through 6 frequently go to more than one other LAG or process.

A proper interface specification for a LAG such as Requirements would define the level of detail, format, and frequency of each input/output that crosses the interface. The development of a proper interface cannot be done from the perspective of one LAG. It must result from interaction between LAGs in a systems engineering environment. Future efforts should be oriented to developing proper interfaces.

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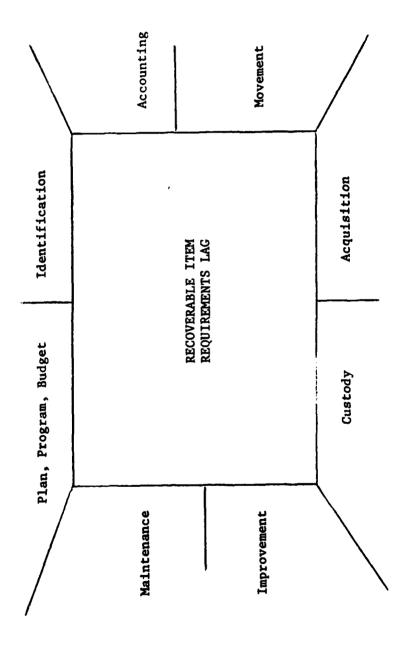


FIGURE 7. RECOVERABLE ITEM REQUIREMENTS INTERFACES

TABLE 1. RECOVERABLE ITEM LAG INTERFACES WITH OTHER PROCESSES AND PERSPECTIVES

PPB

From

To

Program Guidance Planned Usage by System

Priority by System

Base Assignments by System

Constraints: War Plans

Funds

WRSK Policy

POM Requirements

Budget Requirements by: System

Item

Year

Shortfalls by: System

Item

Quarter

Identification

From

Application (Use on) Systems

QPI

FSN

Substitution

Interchangeability

New Information (Changes)

To

To

Quarter

Base/Depot

Expected Repairs by:

New Item for Repair

Deletions

Maintenance

From

Source of Repair

Depot Repair Cycle Time

Depot Condemnation Rate

Average Cost of Depot Repair

Base Repair Cycle Time

Base Condemnation Rate

Not Reparable This Station (NRTS) Rate

Dedicated Assets (not Mock-Ups)

Due in from Maintenance (DIFM) Assets

Repair Capacity

New Information (Changes)

Item Operating/Usage Ratio

Acquisition

From

Procurement Lead Time Production Lead Time

Expected Unit Cost Expected Loss of Source

New Systems (Initial Provisioning)

GFE Requirements

To

Quantity of Buy Need Dates

Funds Contraints

TABLE 1. (Continued)

Movement

From

To

Order and Ship Times Cost of Movement New Information (Changes

3

Number of Movements by Quarter Locations for Movements Expected Tonnage Airlift Requirements (Based on Critical Items)

Accounting

From

To

Funds Constraints for Obligation Obligation Authority Available Progress of Obligations Computational Capability New Information (Changes)

Need for Obligation Authority Reports of Usage of Computation Capability Needs for Computational Capability

Item Management

From

To

Computing Methodology Negotiated Levels Operating Hours by Item New Information (Changes) Foreign Military Sales

Item Buy Requirements:

Number Schedule Funds

Repair Actions

<u> Produktova Prakova Prakova Prakova Prakovača Prakovača Prakova P</u>

Expected Excess Expected Shortfalls

Other Programs

Alternative Solutions

Improvement

From

To

Availability of Turnaround Assets

Approved Changes: Effectivity

Schedule

Interchangeability Need for Turnaround

Assets

Custody

From

To

Assets on Hand: Serviceable

Expected Demands

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Reparable

Expected Critical Items

Assets Due in from: New Buy

Expected Asset Position by Quarter

Maintenance

Expected Excess

Safety Level Criteria

FCMS DATA SHEETS

The following section of this report contains sample data sheets which translate information in the text and figures to FCMS format.

The data sheets are at three levels. The first is at the LAG level and summarizes the entire LAG. The second set are at the process level, as defined by PSL/PSA conventions. The third set are at the entity level, as defined by PSL/PSA.

Each data sheet contains sufficient information to relate it to higher levels within FCMS, and other elements in the same level of FCMS. When this information has been entered into the FCMS data base it should be possible for the system to construct a diagram of the process. When the FCMS data base is complete for all LAGs, it should be possible to indicate any inconsistencies in interfaces as they are defined.

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: <u>\$</u>			
			LMS LAG 14
22.22	\$	Date of Last Cha	nge: 5/1/82
Services controls	3	Synonyms Are:	Requirements LAG, Recoverable Items
		Description:	The Recoverable Item Requirements LAG provides a means of
25.5.6			cure requirements for recoverable items based on historical
***		data and futu	re program operating hours.
SANSON PROPERTY		Key Words Are:	Recoverable items
4			Buy requirement
The State of the S	Z.		Repair requirements
S. C. C.		Sub-Parts Are:	Determine future usage - 14A
1.5.	3		Compute future needs - 14B
	3		Evaluate current assets - 14C
			Define buy requirements - 14D
Carry			Define excess assets - 14E
		•	
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3	Data of Last Change: 5/1/82	
	Define Process: 14 A	
337	Date of Last Change: 5/1/82	
32.2	Synonyms Are:Determine Future Usage	•
	Description: This process uses approved program guidance and specific item	
	data to determine the future operating hours for each recoverable item.	,
	The period of interest is lead time for acquiring additional quantities	
3	of each item.	ı
	Key Words Are: Lead time Program operating hours	• •
753	Part of: _LAG 14 (Recoverable Item Requirements LAG)	
202	Derives: Use by item	,
; ; (5)		
222	Employs: Item lead times	
23.6	Application data	
15.75	QPT New system Initial provisioning	
S	Inputs: Program operating hours	
200		
	Outputs:	
8	ĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸ	<i>ትል</i> ፍታ

DATA SHEET

PROCESS LEVEL

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	Define Process: 14B
272 245 273 245	Date of Last Change: 5/1/82
1650 (SS)	Synonyms Are: Compute Future Needs
33	Description. This process was red item.
77.55 77.55	Description: This process uses end item use and current factors to compute the number of assets required to meet the future need. This process
3	also computes the number of each item that will be repaired.
KC 253 855 953	Key Words Are: <u>Lead times</u>
68	Repair times
27)	Part of: LAG 14 (Recoverable Item Requirements LAG)
3	Derives: Needs by item
K.	
KK 1443 1539	
55.3	Employs: Current factors
	Negotiated levels
72. 22.	Approved changes
	Inputs:
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	**	Company of the Company of the Company	22 DATA SHEET
	***		·
	3		PROCESS LEVEL
	33	Define Pro	cess: 14C
	3	Date of La	st Change: 5/1/82
;	े २ े	Synonyms A	re:Evaluate Current Assets
Section .	3 993		
		_	n: This process provides a current assessment of the worldwide
		asset	position for each recoverable item. It uses current inventory and
N. Sec.	2		n assets from both maintenance and previous buys to develop a
The state of the s	8		ehensive, worldwide asset position.
	3	well words	Are: Lead times Repair times
		Part of: _	LAG 14 (Recoverable Item Requirements LAG)
	2 3	Derives:	Turnaround asset availability
	E D	-	Shortfalls
		-	Excess assets
		<u>-</u>	
		Employs:	Condition
	a	_	Worldwide assets
	200	-	Due-ins
200	8	Inputs:	
100			
The second	223	Outputs: _	
ARTICLE CONTROL LINEWAY, DESCRIPTION OF THE		-	
. "	1 2 82 6 84 6 8 4 8 14	***	ĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸ

PROCESS LEVEL

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Define Pro	cess:	14D	
Date of La	st Cha	mange: 5/1/82	
Synonyms A	re: _	Define Buy Requirements	
	-		
Descriptio	n:	This process uses the needs by item compared to the world	dwide
asset	posi	tion to compute the shortfall in assets expected lead time	e away
	_		-
Key Words	Are:	Asset position	
		Due-in assets	
Part of:	LAG	14 Recoverable Item Requirements LAG)	
Derives:	Expe	ected asset position	
	Ехре	ected demands	
,	Expe	ected critical items	
	Buy	requirement	
	POM	Budget input	
Employs:	Shor	rtfalls	
Inputs: _	Pric	ority	
_			
Outputs:			

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PROCESS LEVEL

Define Process:	14E
Date of Last Cha	ange: 5/1/82
Synonyms Are:	Define Excess Assets
Description: _	This process uses asset needs versus asset position to identify
items that	are in excess position. This information is used to nominate
assets for	disposal. Options for use of each item are considered prior
to disposa	l recommendation.
Key Words Are:	Excess assets
Part of: LAG	14 (Recoverable Item Requirements LAG)
Derives: Exc	ess item list
<u></u>	
	·
Employs: Opt	ions for disposition
Ехс	ess assets
Inputs:	
Outputs:	·

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ENTITY LEVEL

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1. S.	7.7	25	and an an analysis of the
· Carrie	7	DATA SHEET	
STATE OF THE STATE		ENTITY LEVEL	
	77	Define Entity: Use By Item	· ····································
The second secon	ST.	Date of Last Change: 5/1/82	
のはいいない	5 13	Synonyms Are: Item Usage	
Silve of			
5 4		Description: This data element gives the expected total operating for each item by quarter over the lead time for the item.	hours
1		ror eden reem by quarter over the read time for the reem.	
1			
المعتبية	E23 8	Key Words: National Stock List (NSL)	
1.40	3		
34	253		
1. Sept. 1.		Attributes: Item oriented	
	3	Combined usage by item	
	3	Sub-Parts Are: Data output for each item	
C E			
-	53 53		
27.7	223		
10 to		Source is: LAG 14A	
Contract Contraction of the second		Use is: LAG 14B	
-	E 7		

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ENTITY LEVEL

Define Entity:	Application Data
-	
Date of Last Ch	ange: 5/1/82
Synonyms Are:	Use on Code
Description: _	These data define the systems on which each item is used and
the quanti	ity per installation (QPI) for each item.
	·
	PI
_ <u>Us</u>	se on
Attributes: <u>Na</u>	ational stock list oriented
C. S. Dawes Amax	Use on gode
Sub-Parts Are:	Use on code QPI
	National stock list number
	Substitutability
Source is:	Provisioning data/SM requirements
Use is:	LAG 14A
	

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ENTITY LEVEL

Define Entity:
Date of Last Change: 5/1/82
Synonyms Are: Acquisition Lead Time
Description: The total lead time to order and receive an item given a
decision to order.
Key Words: Procurement
Administrative lead
Attributes: Calendar time in days
Sub-Parts Are: Administrative lead
Production lead
Source is: Acquisition LAG
negative in mo
Use is: LAG 14A
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	ENTITY_LEVEL
Define Entity	: Program Operating Hours
Date of Last	Change: <u>5/1/82</u>
Synonyms Are:	Program Guidance
	The official Air Force program of operating hours for each contained in the P series documents.
	·
Von Honde	
key words: _	Operating hours
_	
Attributes:	Operating hours by system
	Programmed equippage of AF units
Sub-Parts Are	: Each weapon system
Source is: _	USAF PD
Use is:	LAG 14A

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Define Entity	: Needs by Item
Date of Last	Change: 5/1/82
Synonyms Are:	Raw Requirements
Description:	This entity provides a definition of the total pipeline and
safety 1	level needs for recoverable items. Pipeline includes repair,
order, a	and ship asset requirements.
W !!!	Safatu laval
Key Words: _	Order and ship
_	order and ship
Attributes:	Requirements by quarter
Cub Domes And	e: Order and ship quantity
Sup-raits Are	Base repair cycle assets
	Depot repair cycle assets
	Safety levels
	Negotiated levels
	Negotiated levels
Source is: _	LAG 14B
Non-day	LAG 14C
Use is:	
	

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Define Entity	Repairs by Item
Date of Last	Change: 5/1/82
Synonyms Are:	Incidents of Repair
Description:	This entity contains a projection of the quantity of each
item th	at will require repair in each quarter over the lead time and
the dol	lar value of those repairs.
	Value of Grand Topics of Table 1
 	
Key Words: _	Labor standard
	DMIF rate
-	
-	
Attributes:	
Sub-Parts Are	e: List of repair by NSL items
Source is:	LAG 14B
	,
Use is:	LAG 14C
	•

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	स्य ओ	Define Entity: Negotiated Levels
		Date of Last Change: 5/1/82
	3	Synonyms Are: Special Levels
		Description: This entity conveys the approved special or negotiated levels
	60	that must be honored over the lead time of each item.
		•
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6	Q.	Key Words:
8		·
, S		Attributes: By NSL item
	3	
*		Sub-Parts Are: List by NSL item
	ଞ୍ଜ	
	2000 - 10	
N CO	773 -	
		Source is: IM specialist (1996s)
	त र	Use is: LAG 14B
	N.	
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ENTITY LEVEL

Define Entity	Approved Changes
Date of Last	Change: 5/1/82
Synonyms Are:	Turnaround Assets; Modification Program
•	
D	This artitus accurate the time about and accut accurate to
-	This entity conveys the time-phasing and asset requirement to
to suppo	ort modifications. It also defines the phase-out schedule of
replaced	items.
	Configuration control
Key Words: _	Configuration control
_	Interchangeability
_	
Attributes:	By NSL item
Sub-Parts Are	c: Class V modification schedules
	Class IV modification schedules
	·
Source for	Improvement LAG
source 18:	Implovement ino
Tine des	LAG 14B
Use is:	

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ENTITY LEVEL

Define Entity: Current Factors	
Date of Last Change: 5/1/82	
Synonyms Are: DO41 Factors	
	
Description: This entity provides the approved values for all	factors
used in the requirements computation.	
,	
	
Key Words:	
	
Attributes: Data by NSL item	
Cul Danta Aug. Maintenance Footen	
Sub-Parts Are: Maintenance factor	
Base repair cycle time	
Depot repair cycle time	
	
Order and ship time	
Not-reparable-this-station rate	
Condemnation rate	
Source is: Equipment specialist (IM)	
Use is: LAG 14B	
· · · · · · · · · · · · · · · · · · ·	

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	B	
	20	34 DATA SHEET
	33	
	era N	
		ENTITY LEVEL
		Define Entity: Turnaround Asset Availability
	3	
	3	Date of Last Change: 5/1/82
	3	Synonyms Are:
		Description: This entity identifies the assets that could be made available
からまえて まいしていず		to support modifications. The list is generated for each item programmed
		for modification.
		·
	R	Key Words: Modification
i	7.5	
	Z	
		Attributes: Number of assets available
	S	
	E23	Sub-Parts Are: List by NSL item
S.	97	
The second second		
į. Į	G.	Source is: LAG 14C
アイ	3	Use is: Improvement LAG
•		
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Define Entity	y: Shortfalls	
Date of Last	Change: <u>5/1/82</u>	·
Synonyms Are	: Buy Option Quantity	
	This entity conveys the total number of each item that	must be
Key Words:	Buy quantity Dollar requirement	
- Attributes:	List by NSL item	
Sub-Parts Arc	e: List of all items that are short	
Source is:	LAG 14C	
Use is:	LAG 14D	

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The same washes I was	72.5	36 DATA SHEET
1	9	ENTITY LEVEL
*	377	Define Entity:Excess Assets
NEW S		Date of Last Change: 5/1/82
P. C. A.		Synonyms Are: Overage
100		
3 6 6 3 5 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5	_	Description: This entity conveys a list of all items that are in long supply with the number of each asset that is excess.
THE PROPERTY OF THE PARTY OF TH		
A		Key Words: Excess assets Long supply
		wong cappaj
	50	Attributes: By item
The same		Sub-Parts Are: List by NSL item
	33	
	677	
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	100	
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Define Entity:	Worldwide Assets
Date of Last Cha	ange: 5/1/82
Synonyms Are:	Inventory, Worldwide
-	
Description:	This entity conveys the current worldwide asset position for
each recov	erable item. It defines the number, location, and condition
of each as	set.
	
Key Words: On-	hand
Rep	arable
Ser	viceable
Attributes: By	
Sub-Parts Are:	Serviceable
	Reparable
	Depot stock
	Base stock
Source is:	specialist, item records
	,
Use is: LA	NG 140

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ENTITY LEVEL

Define Entity:	Due-In's
Date of Last (Change: <u>5/1/82</u>
Synonyms Are:	Expected Assets
-,,	
Description:	This entity conveys the quantity and schedule for the arrival
of assets	s that are "due in" from all sources.
_	,
-	
	
Key Words:	DIFM
1	Delivery schedule
_	
Attributes: _	By NSL item
_	
_	
Sub-Parts Are:	Due in from maintenance
	Due in from previous buys
	Return of turnaround assets
Source is:	IM specialist/Acquisition
Use is:	LAG 14C
	

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ENTITY LEVEL

Define Entity:	Expected Asset Position
Date of Last Cha	ange: 5/1/82
Synonyms Are:	Projected Asset Position
-	
Description: _	This entity portrays the asset position for each item for
each quarter	over the lead time of the asset.
	•
	**
 _	
Key Words: As	set
_	
Attributes: By	item
Sub-Parts Are:	
Source is: LAG	14D
Use is: IM	specialist
•	
	

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<u>efine Entir</u>	ty: Expected Demands
Tane Inca	Linguista de la companya della companya della companya de la companya de la companya della compa
ate of Las	t Change: 5/1/82
nonyms Are	e:
escription	: This entity conveys the worldwide demand pattern for each
item_o	ver the lead time for the item.
ey Words:	Demand rate
	Fill rate
ttributes:	
ub-Parts A	re:
ource is:	LAG 14D
ource is:	Movement LAG
	,

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Define Enti	ty: Expected Critical Items
Date of Las	t Change: 5/1/82
Synonyms Ar	e: Critical Item Projection
Description	: This entity conveys the expected number of unfilled back orders
to be	expected over the item lead time.
Key Words:	Fill rate
	Back orders
Attributes:	Computed by quarter
Sub-Parts A	re: List by Federal Stock Number (FSN)
	
Source is:	LAG 14D
Use is:	IM specialist
	SM
_	

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ENTITY LEVEL

Define Entit	ty: Buy Requirement	
Date of Last	Change: 5/1/82	_
Synonyms Are	: Item Requirements	_
		_
Description:	This entity is a list by FSN of each item that is to be procur	red
within	the approved budget.	
		_
		_
		_
Key Words:	By option	
	Pudant namaturint	
•	budget constraint	
	· · · · · · · · · · · · · · · · · · ·	
Attributes:	Modified by priority	
Sub-Parts Ar	re:	
Source is:	LAG 14D	
Use is:	Acquisition LAG	
	•	

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DATA SHEET

Define Entit	y: POM Budget Input
Date of Last	Change: 5/1/82
Synonyms Are	: Program Objective Memorandum Input
Description:	This entity projects AFLC's future dollar requirements for
recover	rable items and the impacts of not satisfying them.
Key Words:	Impacts
•	Budget
Attributes:	By item
	Extended value
Sub-Parts Ar	e: Dollars by fiscal year
	Impacts by system
Source is:	LAG 14D
Use is:	PPBS LAG
	SM LAG

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DATA SHEET

_	nge: 5/1/82 Air Force Priority
_	Air Force Priority
escription: Air Force a	This entity defines the priority of each weapon system in the
	ce activity designator sion essentiality
	numerical value by system
ub-Parts Are:	System priority
	Force activity designator Essentiality code
Source is:F	D series documents
Jse is:L	AG 14D

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	DATA SHEET
	ENTITY LEVEL
	ENTITY LEVEL
Define Entity:	Options for Disposition
Date of Last Cha	inge: <u>5/1/82</u>
Synonyms Are: _	Other Requirements
•	Other Requirements
Description:	This entity defines the alternative uses for items subject to
disposal.	Examples are: foreign country needs, training organizations, etc. ess assets posal lists
	ess assets
Dis	posal lists
Attributes: Po	olicy developed by DoD
Attributes: P	olicy developed by DoD
	officy developed by bob
	Foreign country needs
	Foreign country needs State institutions
	Foreign country needs State institutions Schools
	Foreign country needs State institutions
	Foreign country needs State institutions Schools
	Foreign country needs State institutions Schools
Sub-Parts Are:	Foreign country needs State institutions Schools
Sub-Parts Are:	Foreign country needs State institutions Schools Clubs
Sub-Parts Are: Source is: Do	Foreign country needs State institutions Schools Clubs
Sub-Parts Are: Source is: Do	Foreign country needs State institutions Schools Clubs D policy
Sub-Parts Are: Source is: Do	Foreign country needs State institutions Schools Clubs D policy

ENTITY LEVEL

Define Entity:	Excess Item List
Date of Last Cha	ange: 5/1/82
Synonyms Are: _	Long Supply Items List
	This entity defines the quantity of each item that is in long provides recommended disposition of those items.
	,
Key Words:	
Sub-Parts Are:	Items to be retained Items to be disposed of
Source is: LA	G 14E
Use is: Cu	stody LAG

CONCLUSIONS

The use of data sheets as demonstrated here should greatly facilitate the translation of descriptions developed by functional planners into FCMS format. Further, the use of data sheets will standardize output and increase consistency in describing the functional areas.

A suggested addition to these data sheets is the development of a simple narrative description of each of the data elements required. This would allow functional planners to complete the sheets with a minimal amount of orientation.

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GLOSSARY OF ABBREVIATIONS

BRC Base Repair Cycle

DRC Depot Repair Cycle

DIFM Due in from Maintenance

FCMS Functional Configuration Management System

FMS Foreign Military Sales

FSN Federal Stock Number

GFE Government Furnished Equipment

I&S Interchangeability & Substitutability

LAG Logical Application Group

LMS Logistics Management System

NRTS Not Repairable this Station

O&S Order and Ship

PD Program Document

PSL/PSA Problem Statement Language/Problem

Statement Analyzer

QPI Quantity Per Installation

TA Turnaround